**Autometa Theory Topics**

**1.Language to FA**

**2.RE for given language**

**3.RE to FA**

**4.FA to RE**

* **Bypass Method**
* **Ardens Theorem**

**5.NDFA to DFA**

* **Using Transision Table**

**6.Union of Two FA (FA1+FA2)**

**7.Concatination of Two FA (FA1.FA2)**

**8.Intersection of Two FA (FA1 ∩ FA2)**

**9.Compliment of FA**

**10.Clouser of FA (FA\*)**

**11.Minimization of DFA**

**12. ϵ- NFA to NFA**

**13. ϵ- NFA to DFA**

* **Clouser Method**

**14. Equivalance of Two FA’s**

**15. Pumping Lemma Theorem (For Regular Lenguages)**

**16. CFG to CFL**

**17. CFL to CFG**

**18. Simplification of CFG**

* **Elimination of Useless Symbols**
* **Elimination of NULL and Nullable Productions**
* **Elimination of Unit Production**

**19. Chomsky Normal Form**

**20. Making Non-ambigouse CFG (FA to CFG)**

**21. CYK Algorithm**

**22. Construction of PDA From given Language**

**23. Pumping Lemma Algorithm (For CFL)**

**24. Turing Machine**

* **Check acceptence of string by given TM**
* **Construction of TM for given Language**

1. **Copying Machine TM**
2. **Right Shifting TM**
3. **Left Shifting TM (e.t.c)**

**25. Turing Decidable Machine**

**26.Recursive Enumerable TM**

**27. Univarsal TM**

**28. Halting Problem**

**29. Multitape TM**